



```
DDDDDDDD  TTTTTTTTTT EEEEEEEEEEE
DDDDDDDD  TTTTTTTTTT EEEEEEEEEEE
DD      DD      TT      EE
DD      DD      TT      EE
DD      DD      TT      EE
DD      DD      TT      EE
DD      DD      TT      EEEEEEEEE
DD      DD      TT      EEEEEEEEE
DD      DD      TT      EE
DD      DD      TT      EE
DD      DD      TT      EE
DD      DD      TT      EEEEEEEEE
DD      DD      TT      EEEEEEEEE
DDDDDDDD  TT      EEEEEEEEEEE
DDDDDDDD  TT      EEEEEEEEEEE

-----
-----

DDDDDDDD  FFFFFFFFFF 000000 333333
DDDDDDDD  FFFFFFFFFF 000000 333333
DD      DD  FF      00      33      33
DD      DD  FF      00      33      33
DD      DD  FF      00      33      33
DD      DD  FF      0000      33      33
DD      DD  FF      0000      33      33
DD      DD  FFFFFFFF 00      33      33
DD      DD  FFFFFFFF 00      33      33
DD      DD  FF      00      33      33
DD      DD  FF      00      33      33
DD      DD  FF      00      33      33
DD      DD  FF      00      33      33
DD      DD  FF      00      33      33
DD      DD  FF      00      33      33
DDDDDDDD  FF      000000 333333
DDDDDDDD  FF      000000 333333

.....
.....
.....
```

```
MM      MM      AAAAAA  RRRRRRRR
MM      MM      AAAAAA  RRRRRRRR
MMMM  MMMM  AA      AA  RR      RR
MMMM  MMMM  AA      AA  RR      RR
MM  MM  MM  AA      AA  RR      RR
MM  MM  MM  AA      AA  RRRRRRRR
MM  MM  MM  AA      AA  RRRRRRRR
MM  MM  MM  AAAAAAAAAA  RR  RR
MM  MM  MM  AAAAAAAAAA  RR  RR
MM  MM  MM  AA      AA  RR      RR
MM  MM  MM  AA      AA  RR      RR
MM  MM  MM  AA      AA  RR      RR
MM  MM  MM  AA      AA  RR      RR
```

.TITLE DTE\_DF03 - Sample SET HOST/DTE dialer module  
.IDENT 'V04-000'

\*\*\*\*\*  
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++  
FACILITY:

SET HOST/DTE

ABSTRACT:

Provide modem-specific support for autodialing on a DF03, and  
serve as example for other modem types. Activated as a sharable  
image when SET HOST ttcn: /DTE /DIAL=(number:string,MODEM\_TYPE=DF03)  
is run.

ENVIRONMENT:

VAX/VMS, user mode.

--  
AUTHOR: Jake VanNoy, CREATION DATE: 11-Apr-1984

MODIFIED BY:

\*\*

.SBTTL DECLARATIONS



; INCLUDE FILES:

; \$SHRDEF  
; \$STSDEF; shared messages  
; status fields

; MACROS:

; EQUATED SYMBOLS:

REMS\_FACILITY = ^X1FE  
REMS\_BADVALUE = SHRS\_BADVALUE!<REMS\_FACILITY@16>  
CR = 13  
LF = 10

; OWN STORAGE:

CTRLB_DESC:	.LONG	1	: length
	.LONG	0	: will get filled in by code
CTRLB_STR:	.LONG	2	: '2' is ^B
CONN_DESC:	.LONG	CONN_STR_LEN	: length
	.LONG	0	: will get filled in by code
CONN_STR:	.ASCII	<CR><LF>/Connection made to remote port/<CR><LF>	
CONN_STR_LEN =	.-CONN_STR		
FAIL_DESC:	.LONG	FAIL_STR_LEN	: length
	.LONG	0	: will get filled in by code
FAIL_STR:	.ASCII	<CR><LF>/Failed to connect to remote port/<CR><LF>	
FAIL_STR_LEN =	.-FAIL_STR		
READ_BUFFER:	.BLKB	10	: read buffer
IOSB:	.LONG	0.0	: I/O status
READ_STATUS:	.LONG	0	: completion status
USER_CHAN:	.LONG	0	: command channel own storage

.SBTTL DTE\_DF03 - DF03 autodial routine

++

FUNCTIONAL DESCRIPTION:

Perform the necessary autodial protocol on a DF03-AC modem.

CALLING SEQUENCE:

DIAL\_ROUTINE (number\_desc, port\_chan, command\_chan)

INPUT PARAMETERS:

4(AP) - descriptor of string specified in NUMBER:string  
8(AP) - channel number of port DF03 is connected to  
12(AP) - channel number of user's terminal

IMPLICIT INPUTS:

NONE

OUTPUT PARAMETERS:

NONE

IMPLICIT OUTPUTS:

NONE

COMPLETION CODES:

R0 - status

SIDE EFFECTS:

NONE

--

number = 4  
port\_chan = 8  
command\_chan = 12

```
.TRANSFER      DIAL_ROUTINE
.MASK           DIAL_ROUTINE
BRW            DIAL_ROUTINE+2

.ENTRY  DIAL_ROUTINE,^M<R2,R3,R4>

MOVZWL  command_chan(AP),user_chan      ; save for later
MOVL    number(AP),R2                   ; fetch address of descriptor
MOVZWL  (R2),R3                          ; length of string
MOVL    4(R2),R4                         ; address
;
; Loop through string to check for illegal characters
;
10$:  CMPB   #^A/=/, (R4)                  ; '=' is pause character
      BEQL  20$                          ; branch if match
```

```

      CMPB    #^A/0/, (R4)          ; check for number
      BGTRU   30$                   ; Branch if less than legal
      CMPB    #^A/9/, (R4)          ; check for number
      BLSSU   30$                   ; Branch if more than legal
20$:  INCL     R4                     ; next character
      SOBGTR  R3, 10$               ; legal character, loop
      BRB     40$                   ; continue, number ok
      ; error in number string
      ;
30$:  PUSHL   number(AP)             ; signal error
      PUSHL   #1                     ; number of FAO args
      PUSHL   #REMS_BADVALUE         ; error type
      CALLS   #3, G^CIB$SIGNAL       ; error
      MOVL    #REMS_BADVALUE!ST$M_INHIB_MSG, R0 ; return status
      RET                                     ; return
40$:  ;
      ; number string ok, continue.
      ; queue read for character
      ;
      BSBW    READ_CHAR              ; read status character
      BLBC    R0, 100$               ; exit on error
      ;
      ; Write string to modem
      ;
      MOVAB   CTRLB_STR, CTRLB_DESC+4 ; set address
      MOVAB   CTRLB_DESC, R2          ; ^B initiates dial
      BSBW    WRITE_STR              ; write string
      BLBC    R0, 100$               ; exit on error
      ;
      MOVL    number(AP), R2          ; fetch address of descriptor
      BSBW    WRITE_STR              ; write number string
      BLBC    R0, 100$               ; exit on error
      ;
      $HIBER_S                        ; wait for read to complete
      ;
100$: MOVL    READ_STATUS, R0         ; set status
      RET

```

.SBTTL WRITE\_STR - write string to port channel

++

FUNCTIONAL DESCRIPTION:

write a string to the DTE port

CALLING SEQUENCE:

BSBW WRITE\_STR

INPUT PARAMETERS:

R2 - address of descriptor to write

COMPLETION CODES:

R0 - status

--

WRITE\_STR:

```
$QIOW_S -  
  CHAN = port_chan(AP),-      ; channel  
  FUNC = #IOS_WRITEVBLK!IOSM_NOFORMAT,- ; write no format  
  P1   = @4(R2),-           ; address  
  P2   = (R2)                ; length  
RSB
```



.SBTTL READ\_CHAR - read status character from port

++

FUNCTIONAL DESCRIPTION:

Read the status character from the DF03, allowing a maximum of 60 seconds for the event to occur.

CALLING SEQUENCE:

BSBW READ\_CHAR

INPUT PARAMETERS:

NONE

COMPLETION CODES:

R0 - status

--

READ\_CHAR:

```
$QIO_S -
  CHAN = port_chan(AP),-           ; channel
  FUNC = #IOS_READVBLK!IOSM_TIMED!IOSM_PURGE,-
  IOSB = IOSB,-                     ; read timed, purge
  ASTADR = READ_DONE,-              ; I/O status
  P1 = READ_BUFFER,-               ; ast routine
  P2 = #1,-                         ; address
  P3 = #60,-                        ; length
  RSB                                ; timeout
                                   ; exit with status
```



.SBTTL READ\_DONE - ast for read completion

++

FUNCTIONAL DESCRIPTION:

Check for timeout or status character

CALLING SEQUENCE:

CALLED as AST routine

INPUT PARAMETERS:

NONE

COMPLETION CODES:

R0 - status

--

```
.ENTRY READ_DONE,*M<R2>

MOVZWL 10SB,R0          ; get status of read
BLBC   R0,100$          ; branch if timeout

MOVZBL READ_BUFFER,R2   ; fetch data
CMPB   #^A/^/,R2        ; status ok?
BNEQ   10$              ; branch if not
MOVAB  conn_desc,R2     ; set up string
MOVAB  conn_str,4(R2)   ; set up string
BSBW   WRITE_STR_TO_USER ; tell user, ready
BLBC   R0,100$          ; exit on error
MOVL   #SS$_NORMAL,R0  ; ready
BRB    100$             ; exit

10$:  MOVAB  fail_desc,R2 ; set up string
      MOVAB  fail_str,4(R2) ; set up string
      BSBW   WRITE_STR_TO_USER ; tell user, ready
      MOVZWL #SS$_RANGOP,R0 ; status

100$:  MOVL   R0,READ_STATUS ; save status
      SWAKE_S ; wake main stream

RET
```

.SBTTL WRITE\_STR\_TO\_USER - write string to command channel

++

FUNCTIONAL DESCRIPTION:

write a string to the user terminal channel

CALLING SEQUENCE:

BSBW WRITE\_STR\_TO\_USER

INPUT PARAMETERS:

R2 - address of descriptor to write

COMPLETION CODES:

R0 - status

--

WRITE\_STR\_TO\_USER:

\$Q10W_S -	
CHAN = user_chan,-	; channel
FUNC = #IOS_WRITEVBLK,-	; write
P1 = @4(R2),-	; address
P2 = (R2)	; length














































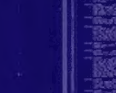








































































































































































RSB

.END



0332 AH-BT13A-SE  
VAX/VMS V4.0

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						RTPAD MAP						RTPADMACS MAR					
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